

Baltimore's CSX Train Derailment: the AQI's role in Emergency Response

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Randy E. Mosier

Maryland Department of the Environment

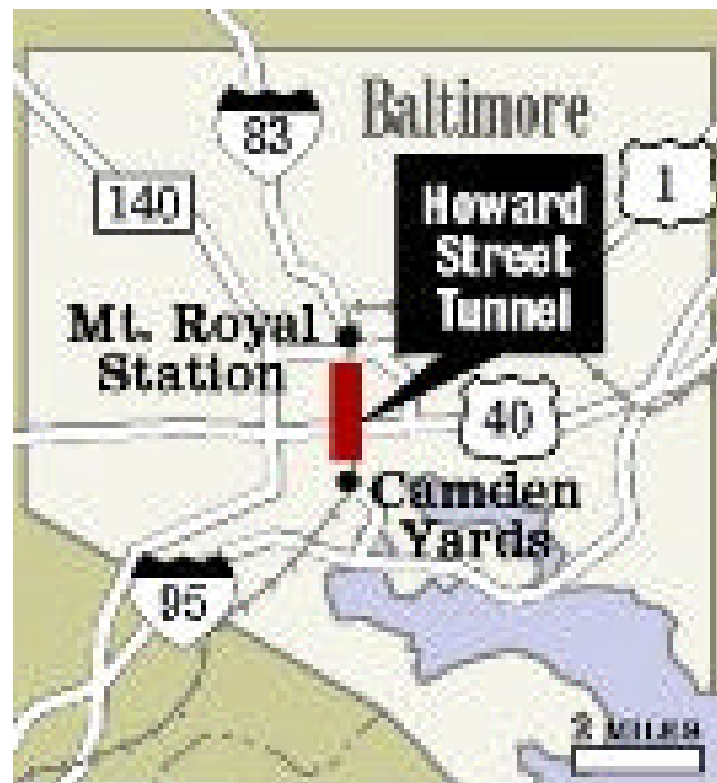


July 18, 2001

- CSX Train has brake actuation at around 3:10 PM
- First 9-1-1 calls at around 4:00 PM
- Train accident reported in the Howard Street Tunnel



Baltimore & Howard Street



Mt. Royal Station

- North End of Tunnel
- Initial Incident Command Post
- Residential and Commercial Area



Camden Yards



- South End of Tunnel
- Main Incident Command Post

Initial Priorities

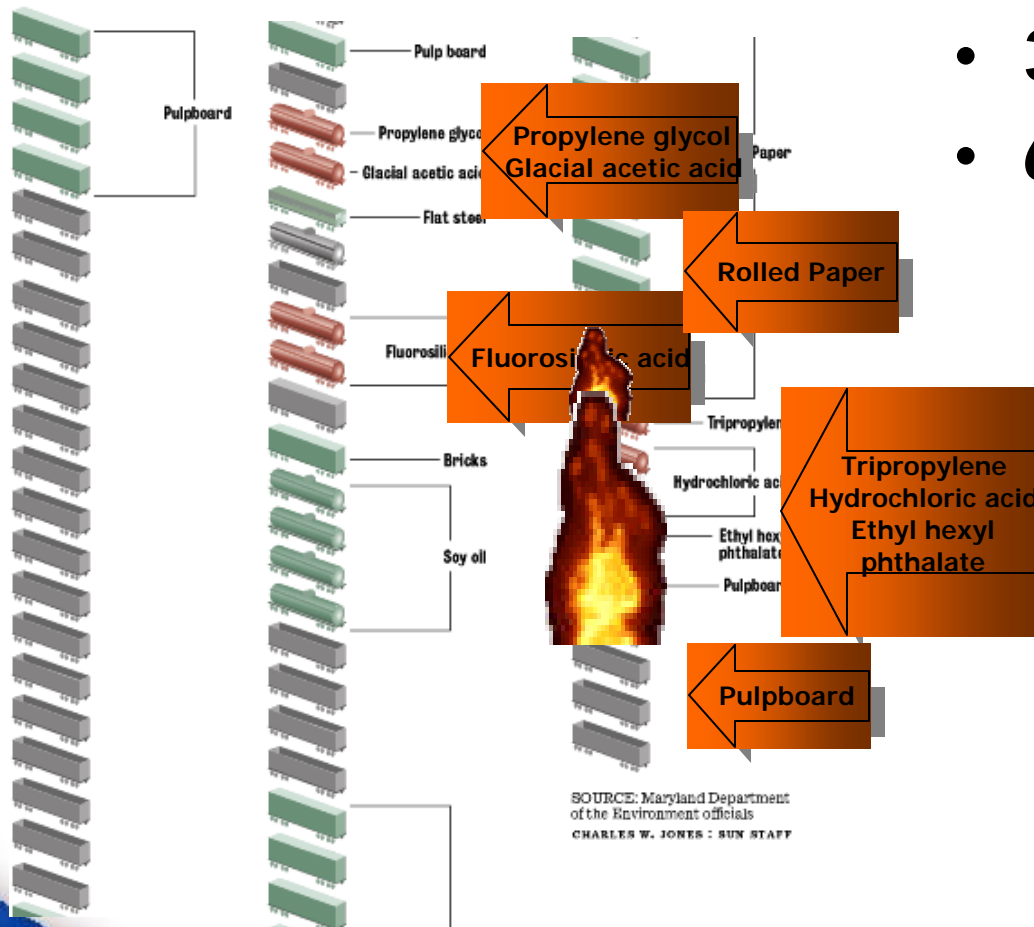
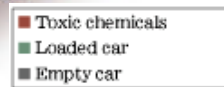
- **Assess the train and contents**
- **Attack the fire**
- **Protect the community**



The Train

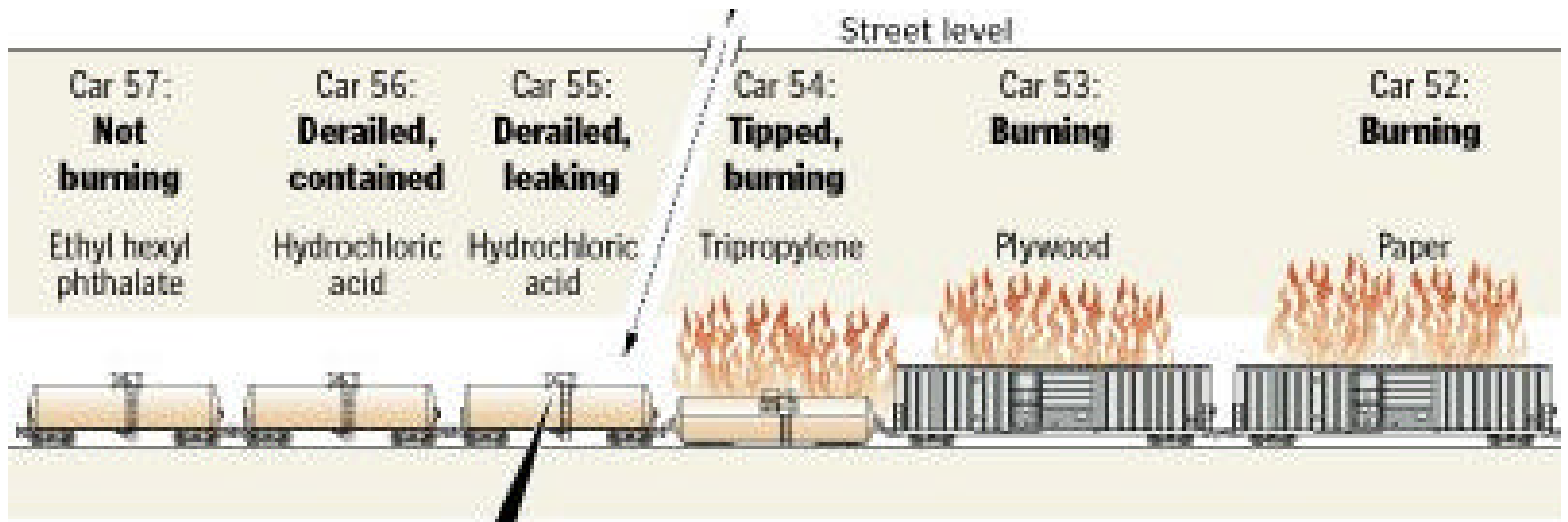
- 3 locomotives, 60 freight cars
- Total length 4,001 feet
- Total weight 4,547 tons
- Mixed load: pulpboard, woodpulp, brick, soyoil, paper, plywood, steel
- 9 HAZMAT Cars

The Cargo

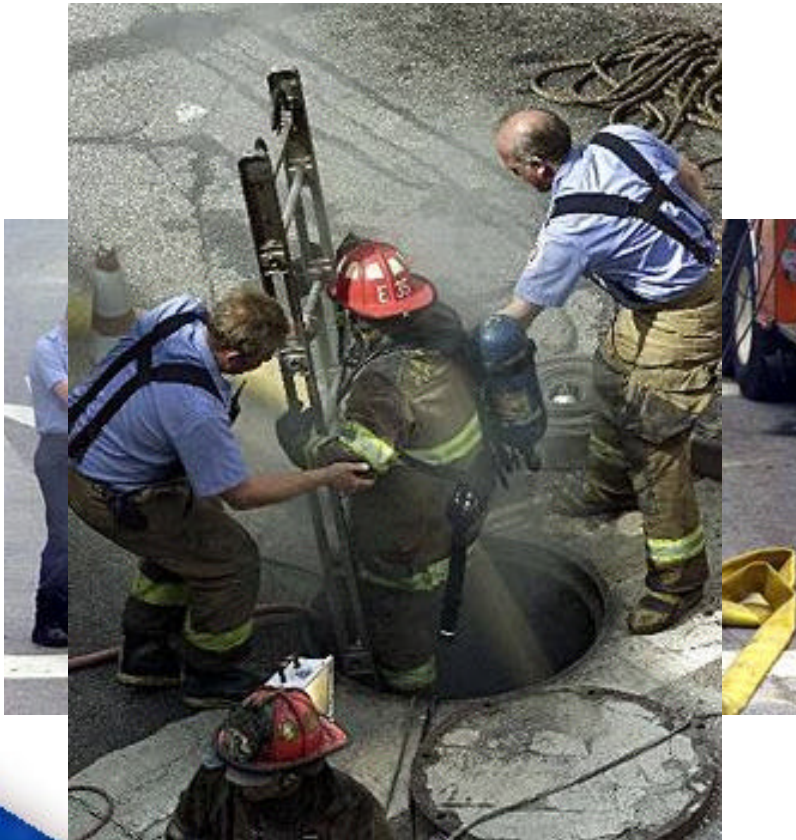


- **3 Locomotives**
- **60 Rail Cars**
 - 31 loaded
 - 29 empty
 - 11 cars derailed
 - 4 derailed with hazardous materials
 - Tank car of tripropylene burned
 - 9 cars with paper and wood also caught fire

Source of the Problem



Getting to the Fire



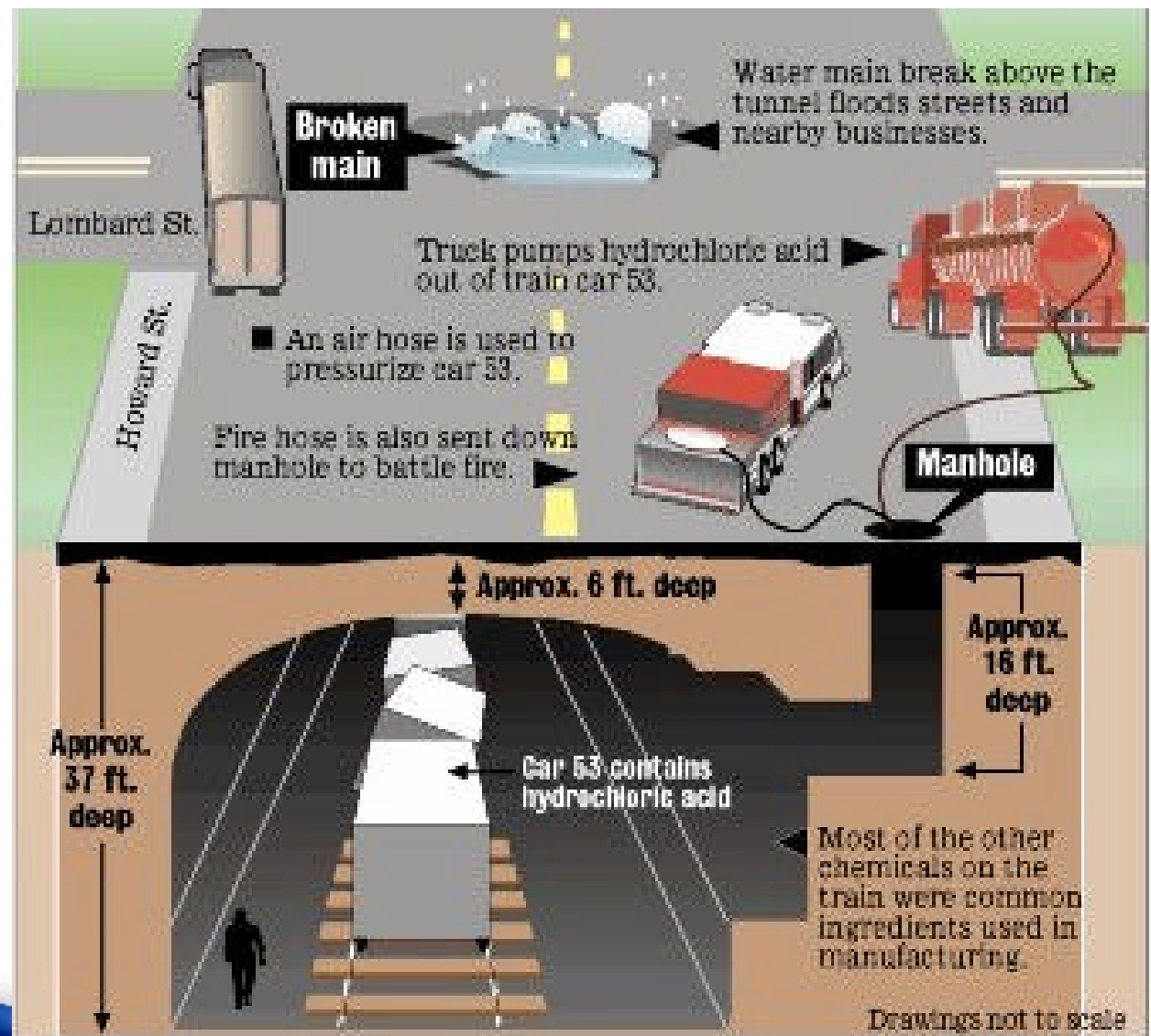
- First attempts at entry were on the north end
 - Too much heat, smoke and distance
- Dual attack from south end and manhole proved successful

Acid Transfer



- Acid removal delayed by tunnel temperatures
- Vacuum truck pumps hydrochloric acid from damaged rail car
- Firefighters apply water spray for vapor suppression
- Small amount of acid leaked
 - Partially neutralized by limestone
 - Diluted by water main break and fire suppression

Fighting Fire/Pumping Acid



Next Steps



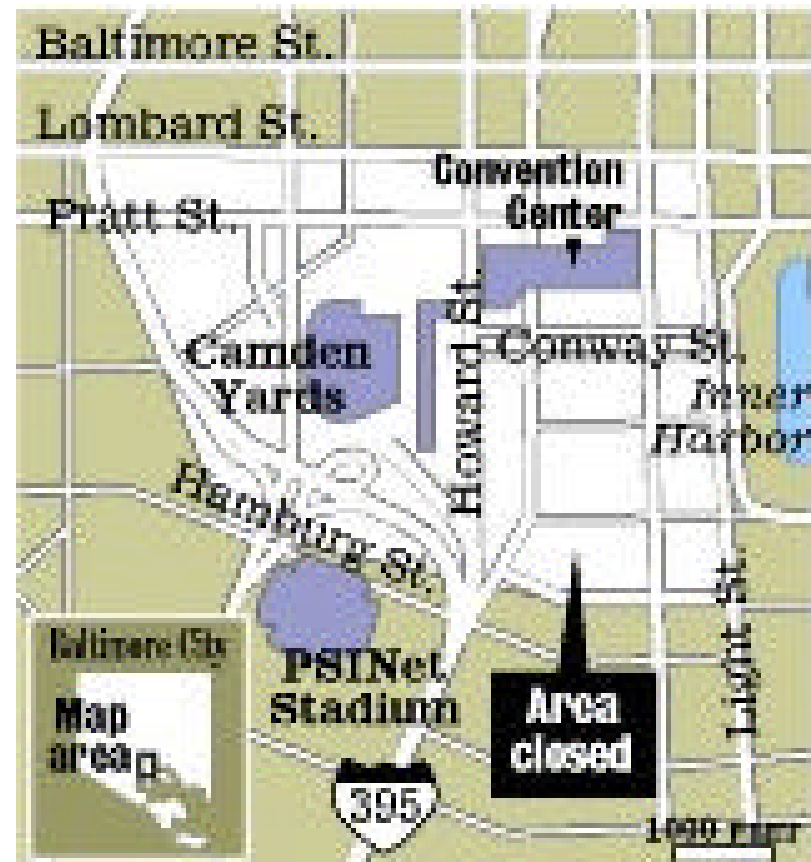
- Remove cars from both ends
- Extinguish burning cars
 - Fire burned for several days
- Secure HAZMAT cars

Would you Believe...

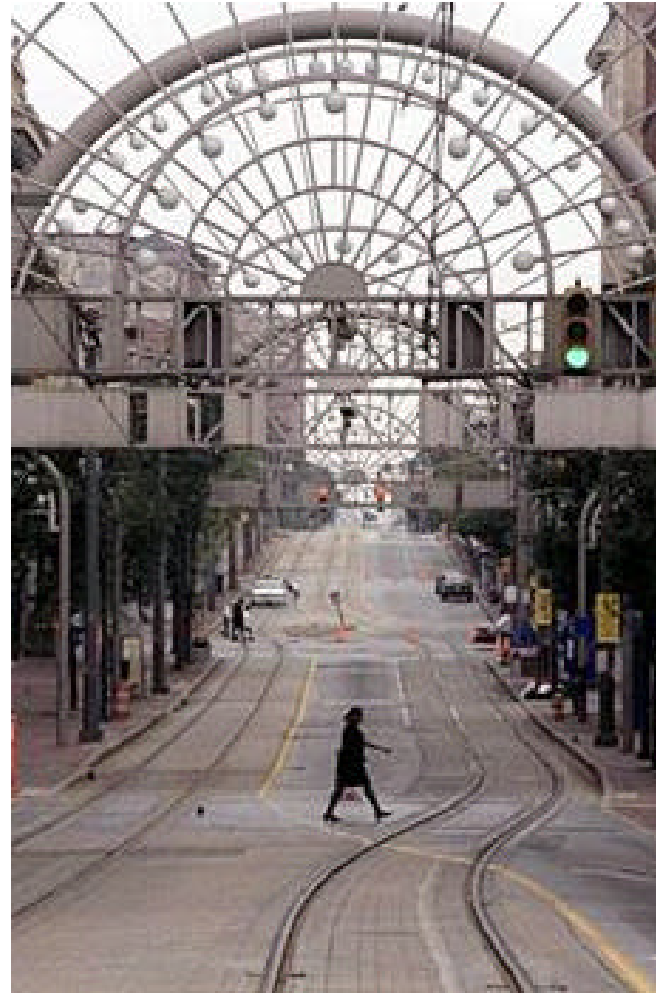


City Impact

- Major sections of downtown closed
- Orioles games re-scheduled
- Businesses impacted
- Portions of Howard Street closed for 7 weeks



City Impact



Community Challenges

- Smoke and soot concerns
- Airborne Toxics
- Inner Harbor Water Quality Concerns
- Heightened HAZMAT Awareness
- Lost Business
- Subsequent Event

Air Monitoring

- **Air monitored in tunnel vicinity, Howard Street and some nearby structures (residential, schools)**
- **Air monitored for CO, HCL vapor, total VOCs, combustible gases, pH**
 - Continued long after the fire was out
- **No indications of hazardous materials releases**
- **Joint federal, state, CSX effort**

Public Information Challenges



- **Incorporation with existing AQI**
- **Use of Civil Defense Sirens**
- **Many voices, one message**
- **Effective spokespeople**

***Thank you for your
attention!***



**Randy E. Mosier
Maryland Department of the Environment
(410) 631-4488
rmosier@mde.state.md.us**